

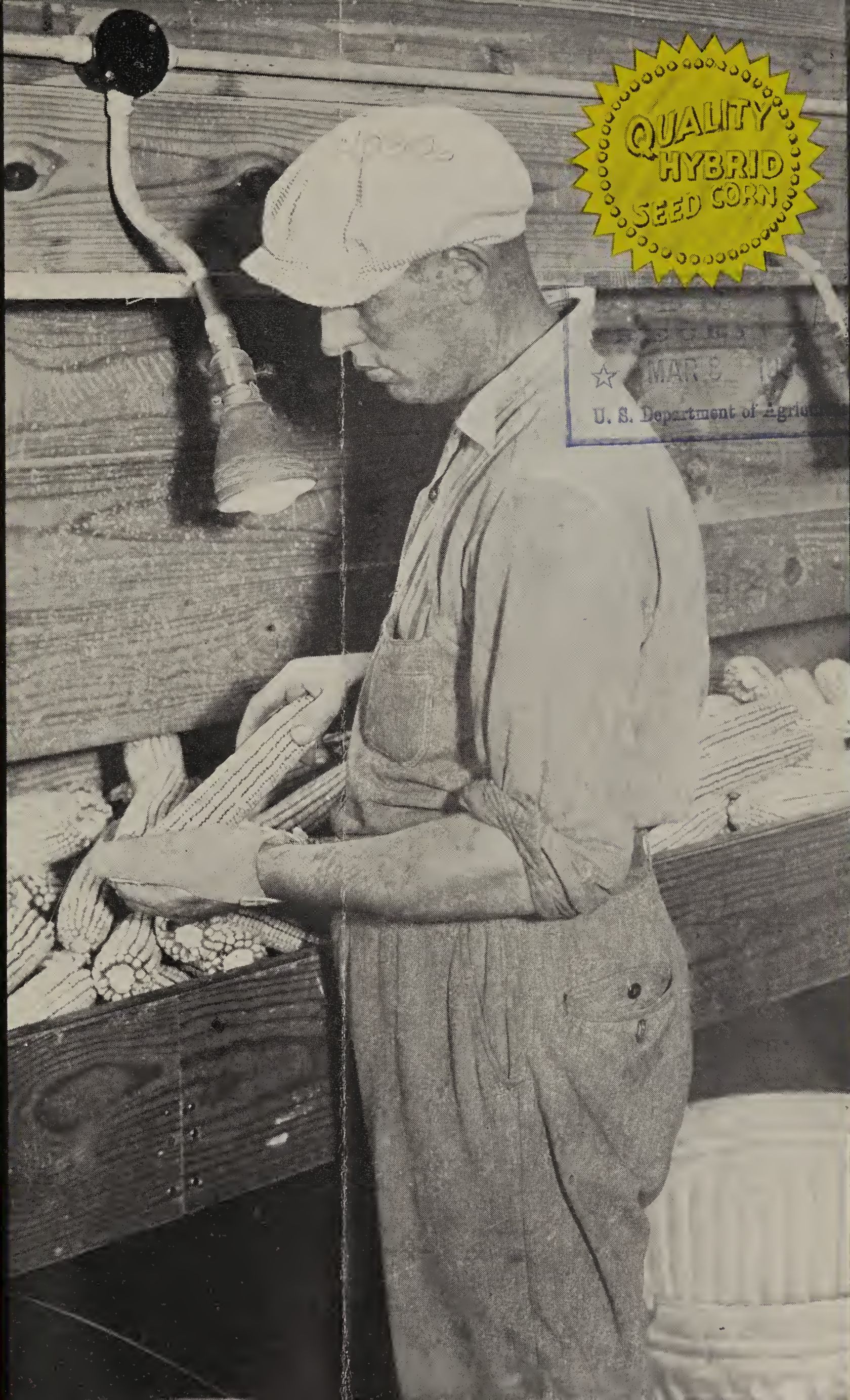
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2,27

corns

PIONEER



CAREFUL PROCESSING

PIONEER IS FIRST

To Offer a Replanting Agreement!

One of the hazards of corn planting is loss of stand due to floods, cutworms, wireworms, cold wet weather, etc. To reduce the losses resulting from replanting, we offer a replanting agreement to every customer.

Really vigorous seed will start off rapidly and avoid most of the hazards. Pioneer hybrid corn is so strong and vigorous that we can offer FREE seed if replanting should become necessary.

REPLANTING AGREEMENT

If, because of cutworms, floods or ANY other reason the stand of corn upon any field planted with PIONEER corn shall be so impaired or diminished that the customer discs up and replants it to corn, we will furnish him free of any charge except transportation costs, a quantity of PIONEER seed equal to that required for such planting. To take advantage of this benefit all the customer needs to do is to notify in writing the Company or its sales representative through whom the seed was purchased in time to permit inspection of the field before it is disced up.

If we have no seed of suitable maturity available for replanting, we reserve the right to furnish an equal amount of PIONEER seed FREE for 1940 planting.

PIONEER HI-BRED CORN COMPANY
Des Moines, Iowa

Pioneer Hybrid Seed is Picked Early

PIONEER hybrid seed corn picking starts early in the fall . . . usually about September 15th . . . long before the first damaging freeze occurs.

Only female ears from the detasseled rows are picked for seed . . . the self-pollinated corn on male or pollen rows, harvested later, is never used as hybrid seed.

During the busiest part of processing season, about 15,000 bushels of hybrid seed is picked and delivered daily to PIONEER corn plants.

To eliminate the dangers of heating, PIONEER hybrid seed corn is delivered to the processing plants on the same day it is picked. PIONEER takes every precaution to safeguard its customers against inferior seed corn . . . for only choice, quality seed produces higher yielding, money-making corn crops.



ONLY DETASSELED (FEMALE) ROWS ARE HARVESTED



ABOVE—POLLEN (MALE) ROWS LEFT STANDING



LEFT—SEED GOES DIRECTLY TO SORTING BINS

Every Ear Hand-sorted



SORTING ROOM



SORTERS . . . CHECKERS IN CENTER



CORN INSPECTED EAR BY EAR

As soon as PIONEER hybrid seed reaches the processing plant, it is conveyed to the sorting department where trained workers, divided into day and night crews, carefully hand-sort the corn ear by ear.

Single damaged kernels are picked out of good corn . . . and weak, chaffy, moldy, and off-type ears are discarded.

On the average, about 140 pounds of ear corn from the field on October 1st is required for every 56 pound bushel of sorted, dried, shelled, and graded PIONEER hybrid seed.

To make certain that sorters save only good corn, checkers re-examine every ear before it leaves the sorting department. All in one day, PIONEER seed is delivered, hand-sorted, re-checked, and conveyed to the driers. When farmers purchase PIONEER, they get sound corn picked before hard freezing weather . . . and hand-sorted and delivered to the driers before it can heat.

DAMAGED CORN IS REMOVED BEFORE SHELLING



Dried to 12% Moisture Content

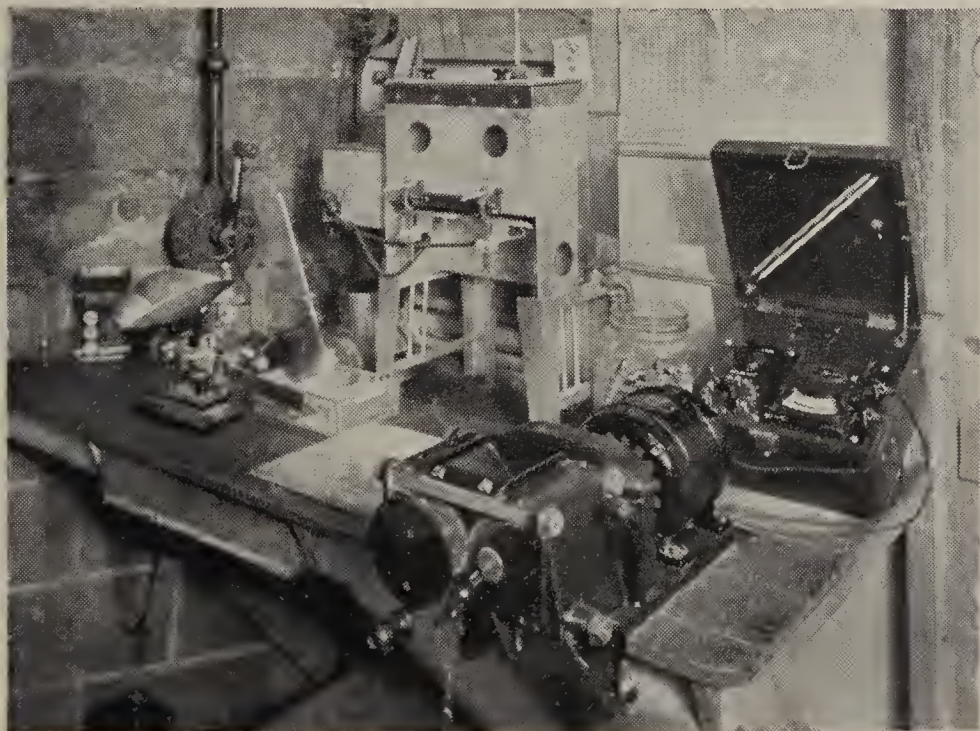
Heated air, driven through the corn and held at a constant temperature of 110 degrees, reduces the moisture content to 12%. Drying PIONEER seed to this point protects the corn from mold, prevents injury by freezing weather during winter storage, and gives strong germination in the spring.

Large, portable driers, with oil burning furnaces and electrically driven pressure fans, force hot air uniformly through every part of the drying bins at the rate of 46,000 cubic feet per minute. The warm air circulates upward through slatted floors . . . into the corn . . . and out through trap doors above the corn, liberating about one ton of moisture per day.

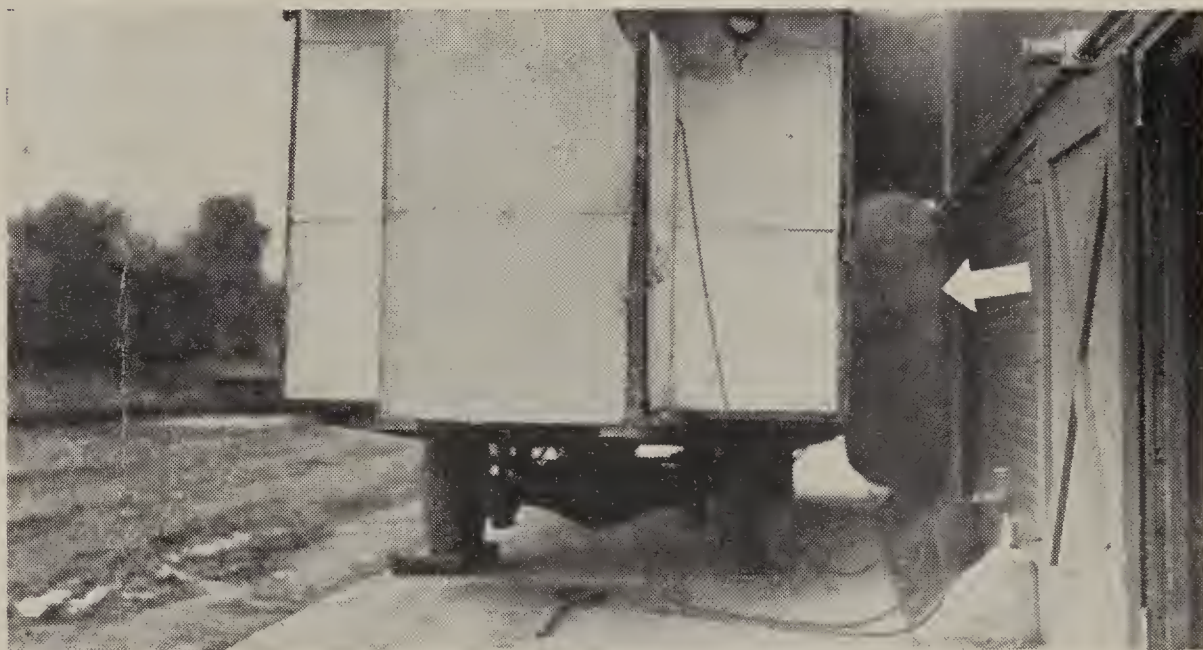
Each drying bin holds about 900 bushels of ear corn which requires from 24 to 72 hours to dry to 12% moisture, depending on the variety of corn and amount of moisture it contains when harvested.

Unless good equipment is used and supervised by experts, seed corn can easily be damaged by improper drying . . . PIONEER practices utmost care, maintains adequate drying equipment, and permits only well-trained men to operate the driers.

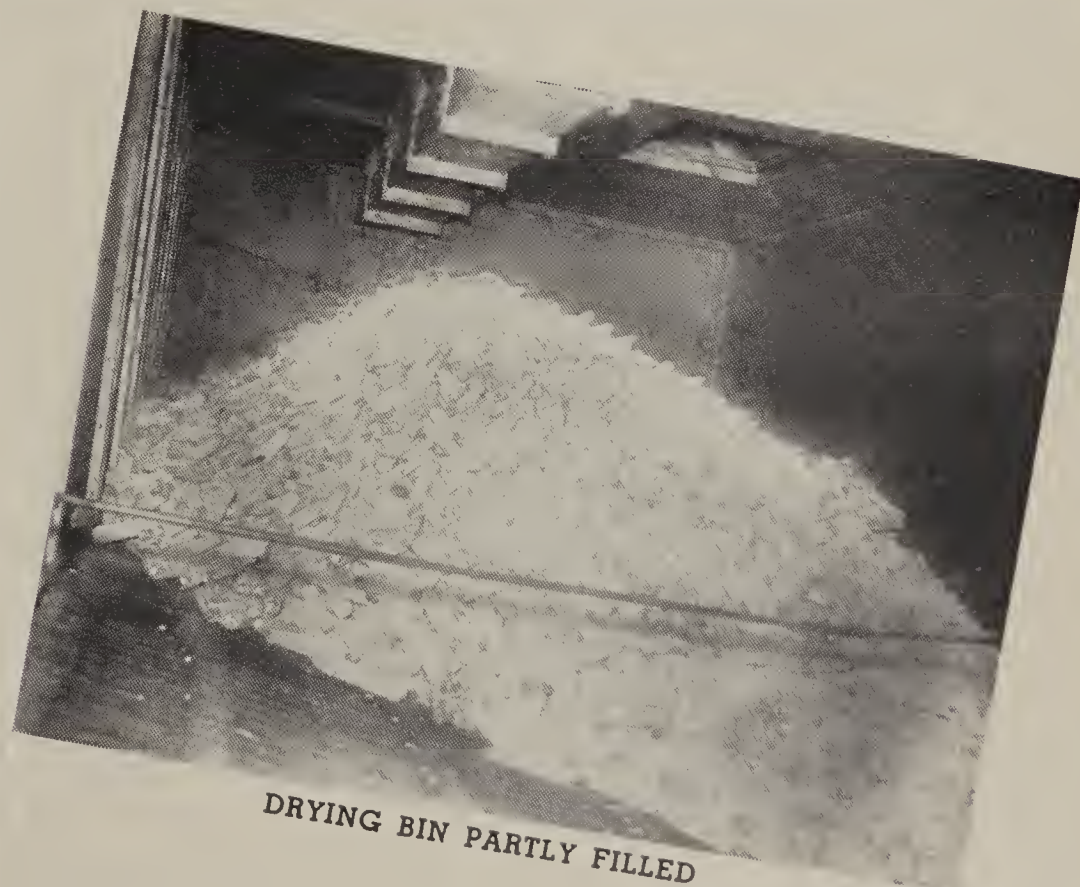
MOISTURE TESTING EQUIPMENT



PORTABLE DRIER



IT FORCES HEATED AIR INTO DRYING BINS



Shelling and Grading



PIONEER CORN SHELLER

SHELLING . . .

As PIONEER hybrid seed is being conveyed to the shellers from the drying bins, it undergoes the third and final inspection for undesirable corn. PIONEER demands hybrid seed of high quality for its customers and makes every practical effort to give them a superior product.

Seed passing the final inspection is fed into large shellers equipped with air-blast cleaners which blow out dust, dirt, and chaffy kernels.

As the corn shells out, elevators carry it to shelled corn bins located above the grading machines.

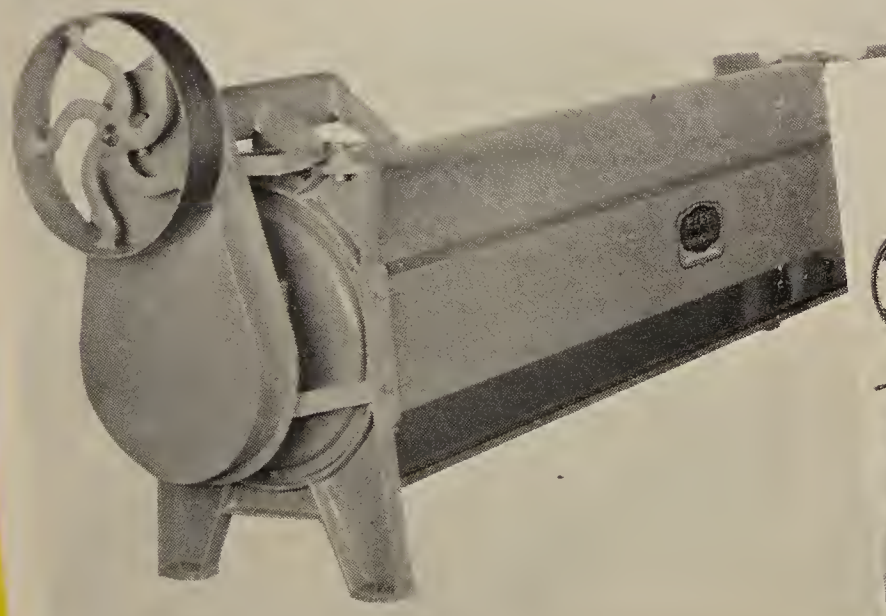
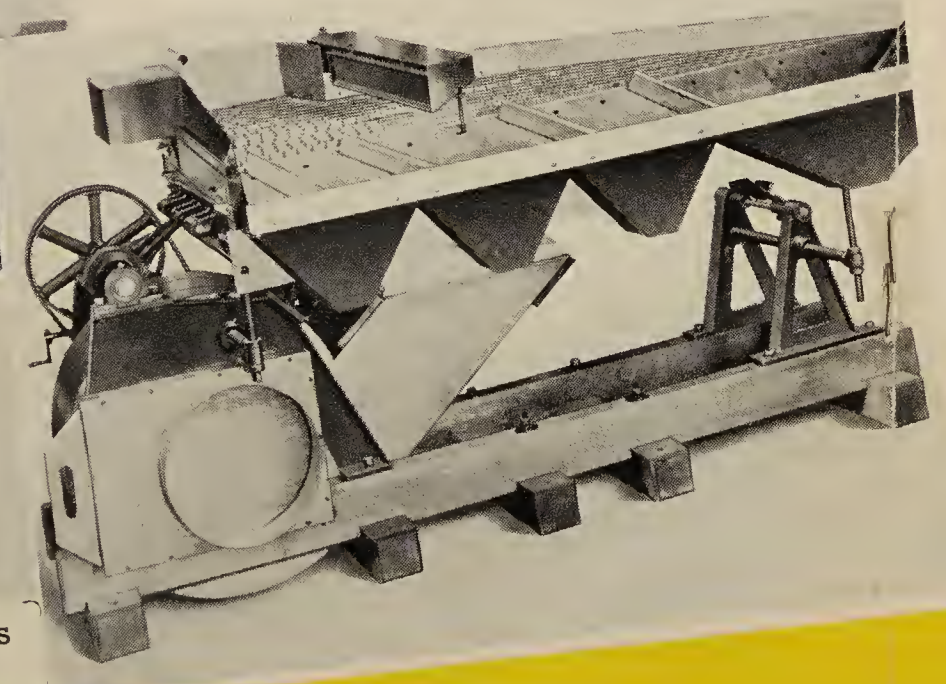
GRADING . . .

PIONEER hybrid seed corn is graded accurately into four uniform kernel sizes. Specially-constructed grading machines, running at the maximum-efficiency rate of 65 bushels per hour, divide the kernels into large flat, small flat, large round, and small round sizes . . . blow out all light, chaffy kernels . . . remove tips and cracked kernels . . . and leave only clean, healthy seed.

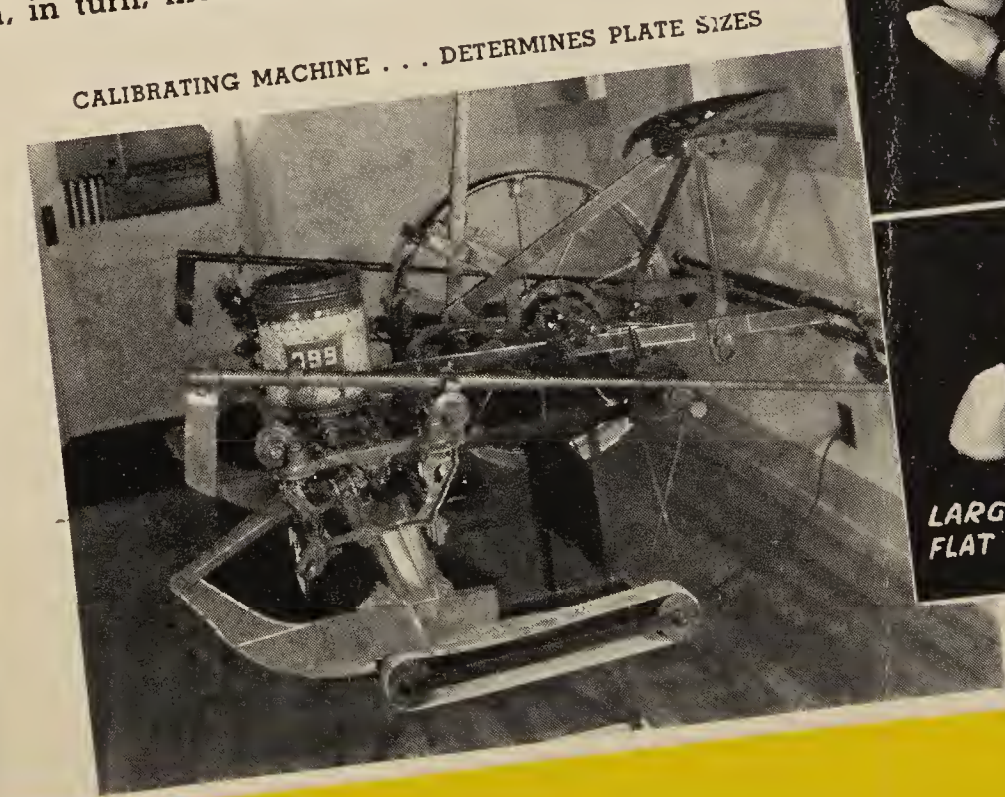
Every kernel size of each hybrid variety is checked in calibrating machines for proper planter plate sizes . . . and each customer receives plate recommendations for his planter. The size or shape of a PIONEER seed kernel bears no relation to yield, size, or quality of corn it grows. Each kernel, whether large, small, flat, or round, carries exactly the same heredity and produces the same type of corn.

If the regular graders fail to eliminate all chaffy kernels, the corn is run through a gravity machine which removes the chaffy grain. And where regular graders check only for width of the kernel, a Uni-flow machine separates the short kernels from the long kernels. Grading seed accurately into uniform sizes is an important factor with PIONEER because an even drop helps secure a good stand which, in turn, means higher yield for the farmer.

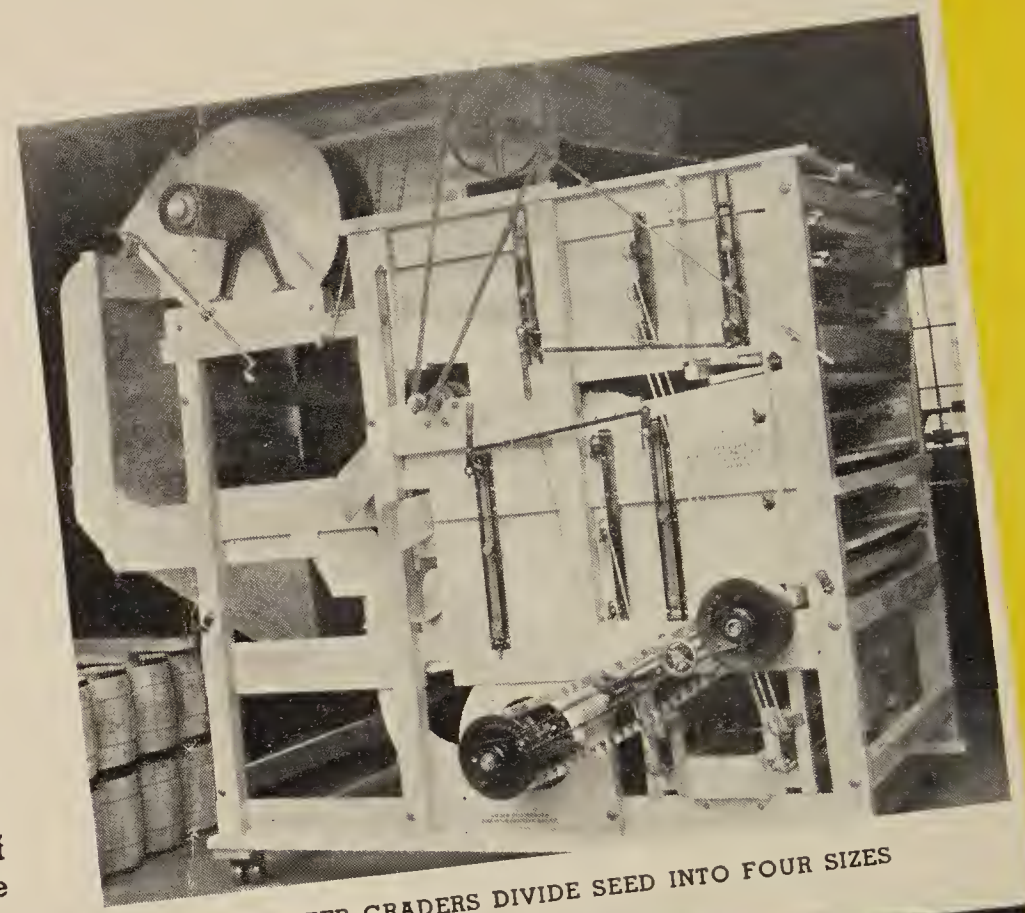
A GRAVITY MACHINE REMOVES CHAFFY KERNELS



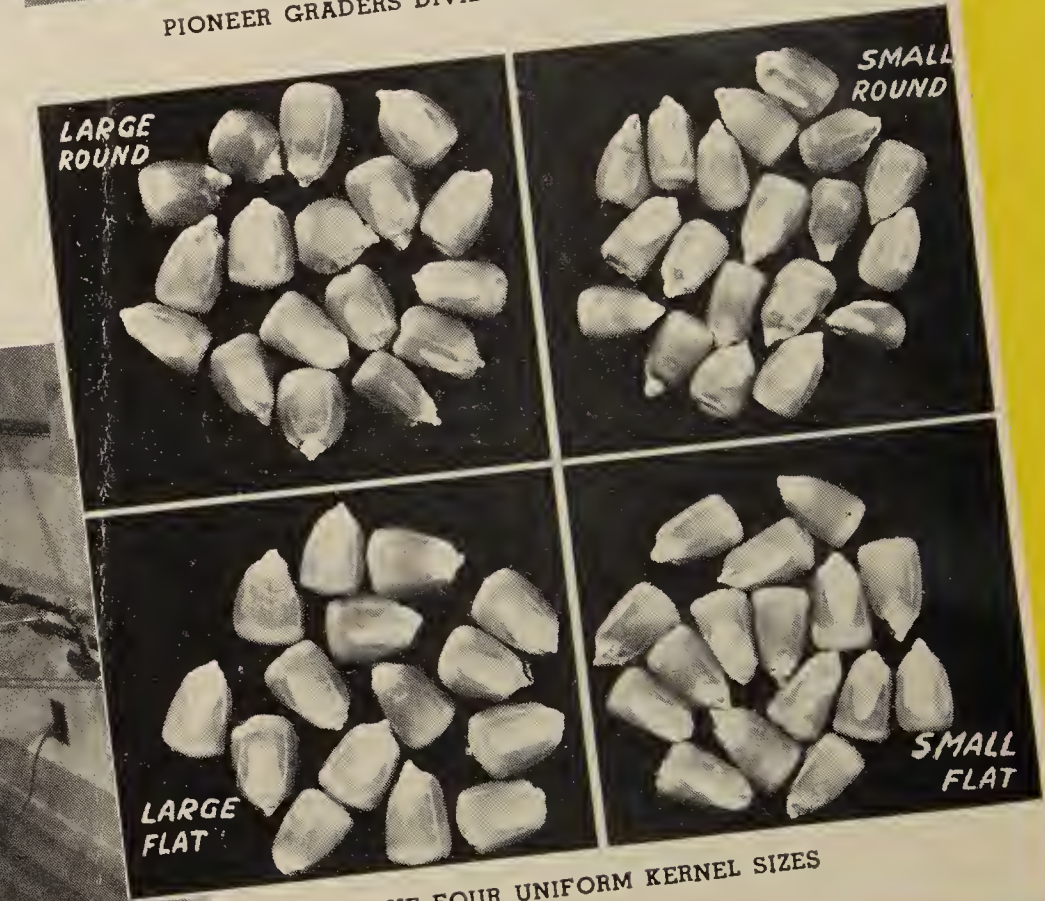
THE UNI-FLOW SEPARATES SHORT AND LONG KERNELS



CALIBRATING MACHINE . . . DETERMINES PLATE SIZES



PIONEER GRADERS DIVIDE SEED INTO FOUR SIZES



THE FOUR UNIFORM KERNEL SIZES

Prices all Crosses	
Flat Kernels	\$7.50
Round Kernels	\$6.50

Treating - Bagging - Weighing

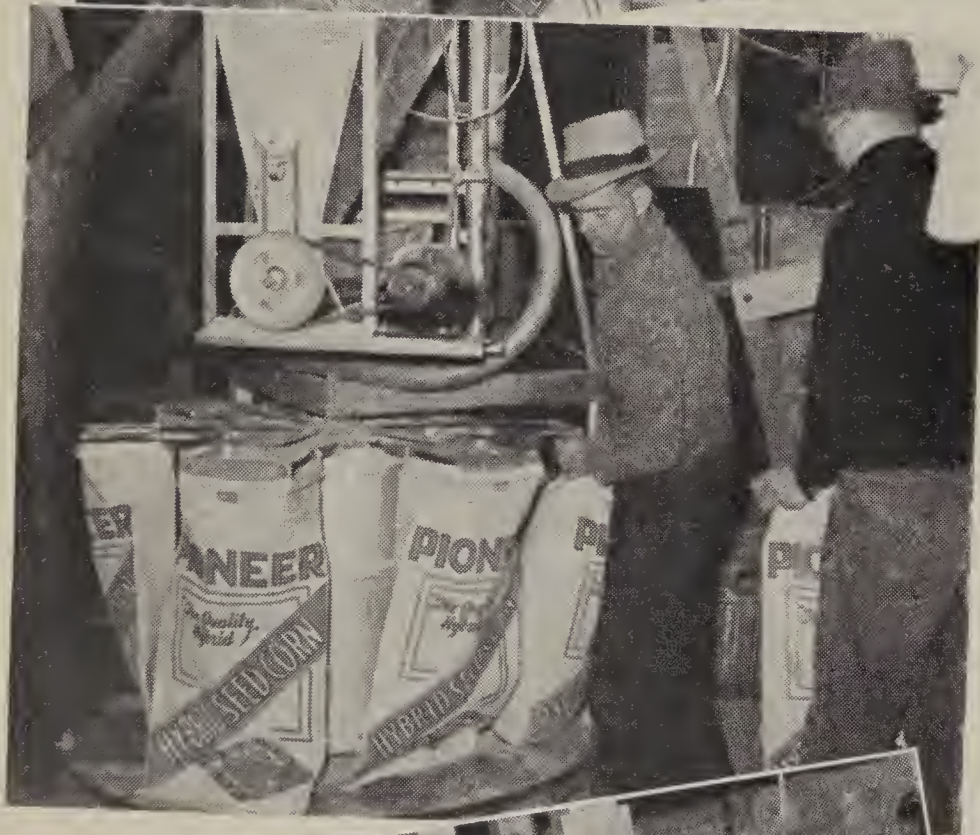
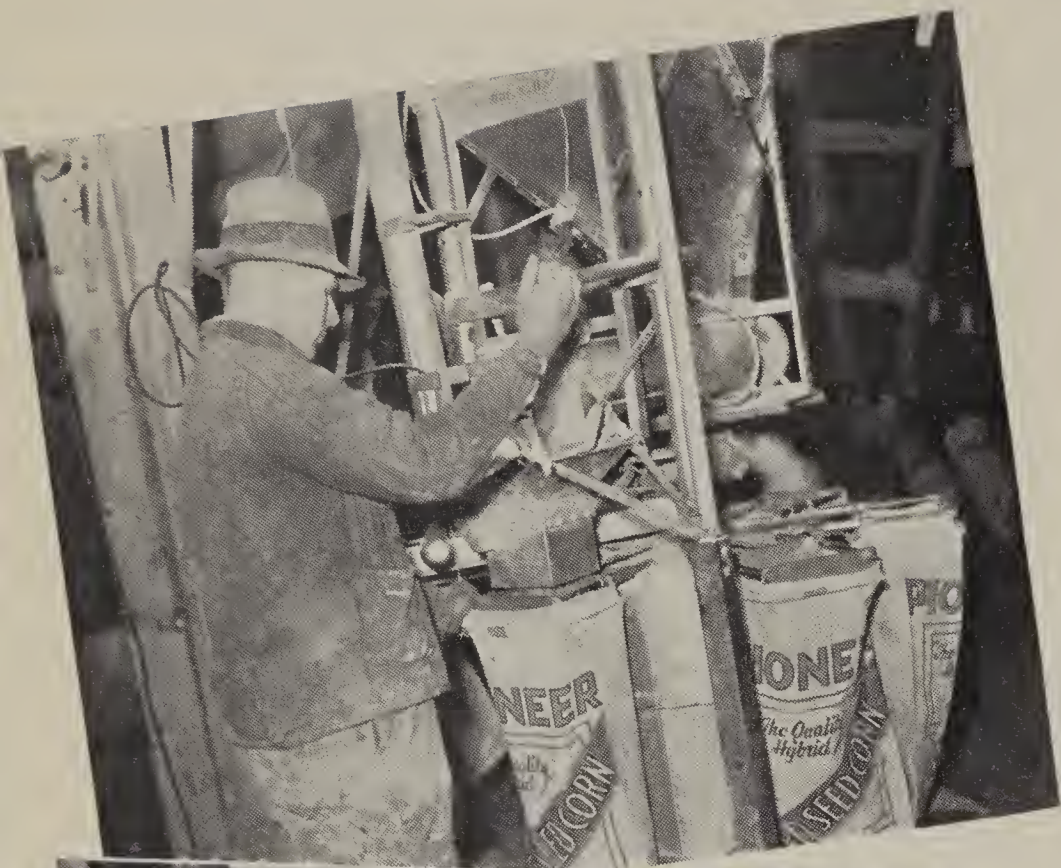
Graded corn feeds from storage bins directly into portable machines which treat the seed with mercury dust and bag it at the same time.

Mercury dust acts as a protection which reduces the growth of mold in cold, wet ground, enlivens germination, and aids the seedling resist disease injury.

While mercury dust treatment strengthens seedling growth, it can also be detrimental if handled improperly. The correct amount of dust must be applied . . . too small an amount does not help the seed and an over-application is sometimes harmful.

PIONEER dust treating machinery is specially designed and supervised by skilled workmen. PIONEER hybrid seed receives dust treatment giving the most profitable results . . . treatment which assures a good stand, and increases the yield.

Treated corn is sacked in trade-marked bushel bags . . . carefully weighed . . . then sealed by sewing. Every bag is stamped with a specific PIONEER hybrid brand number which indicates what variety of corn it is . . . and kernel size initials which designate its grade size. When buying PIONEER, you know exactly what variety of corn and kernel size you get.



Testing for Reliable Germination

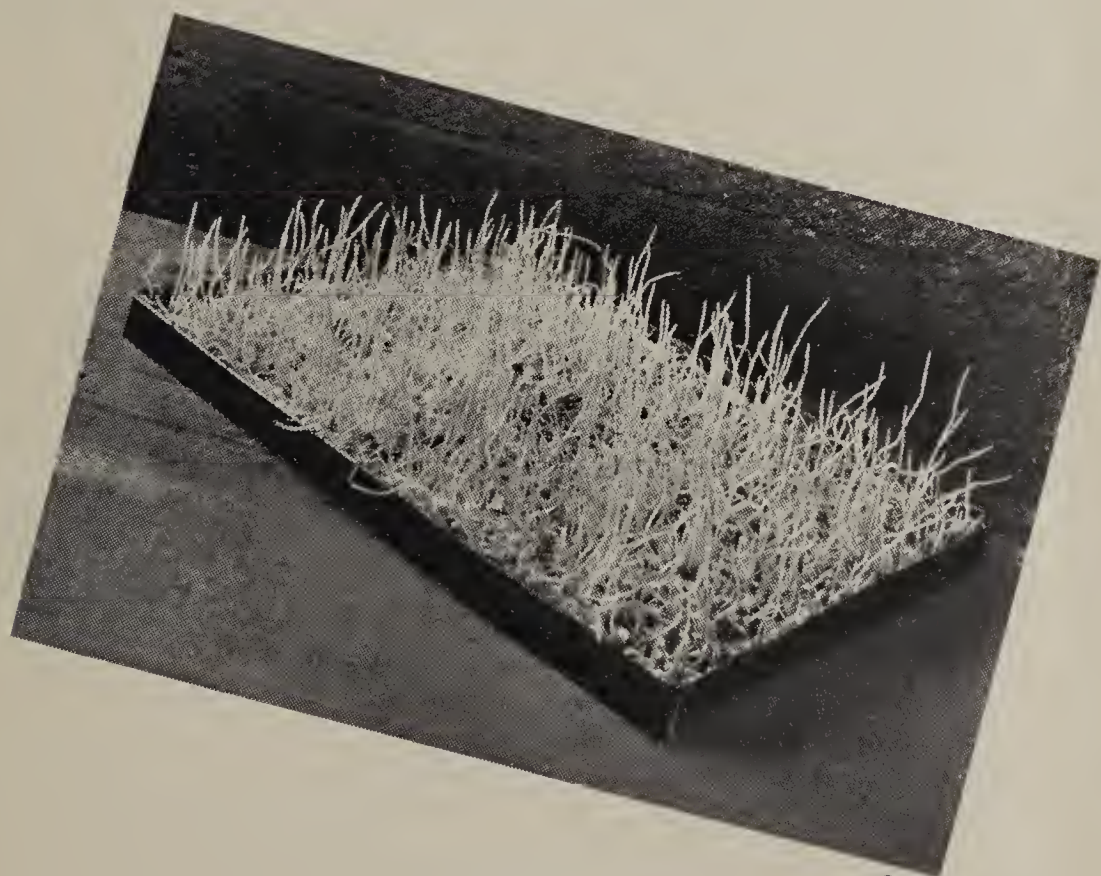
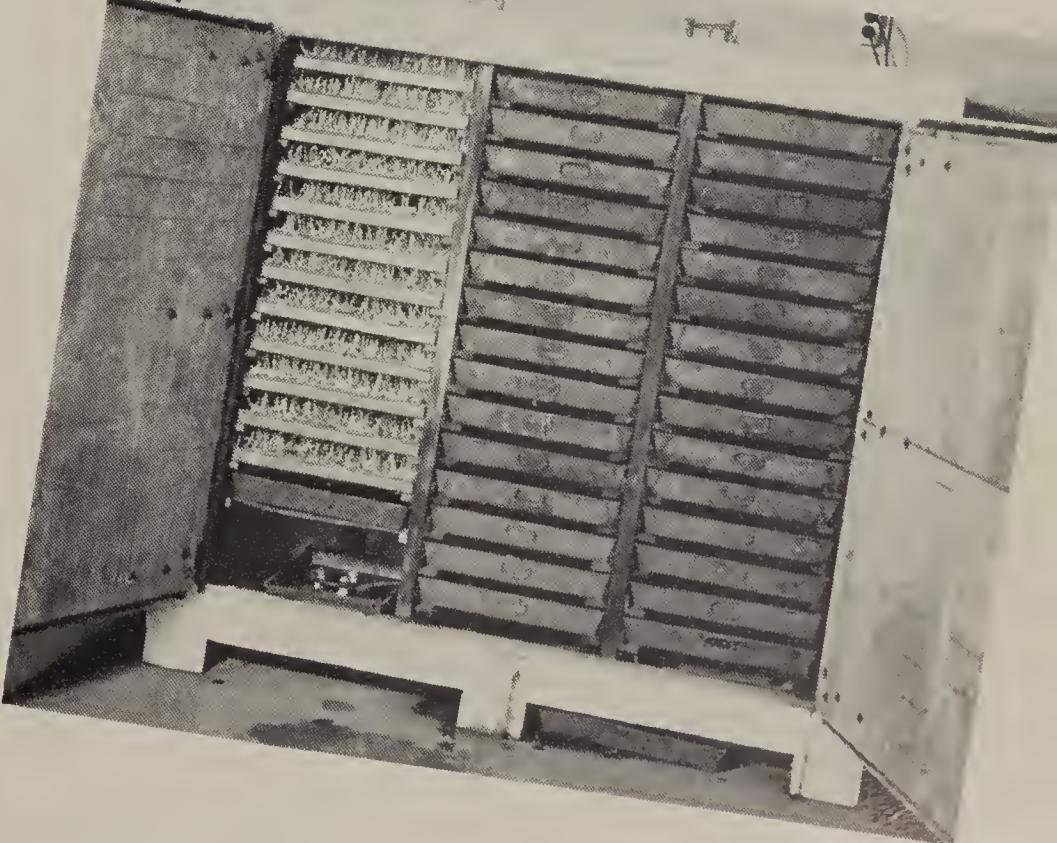
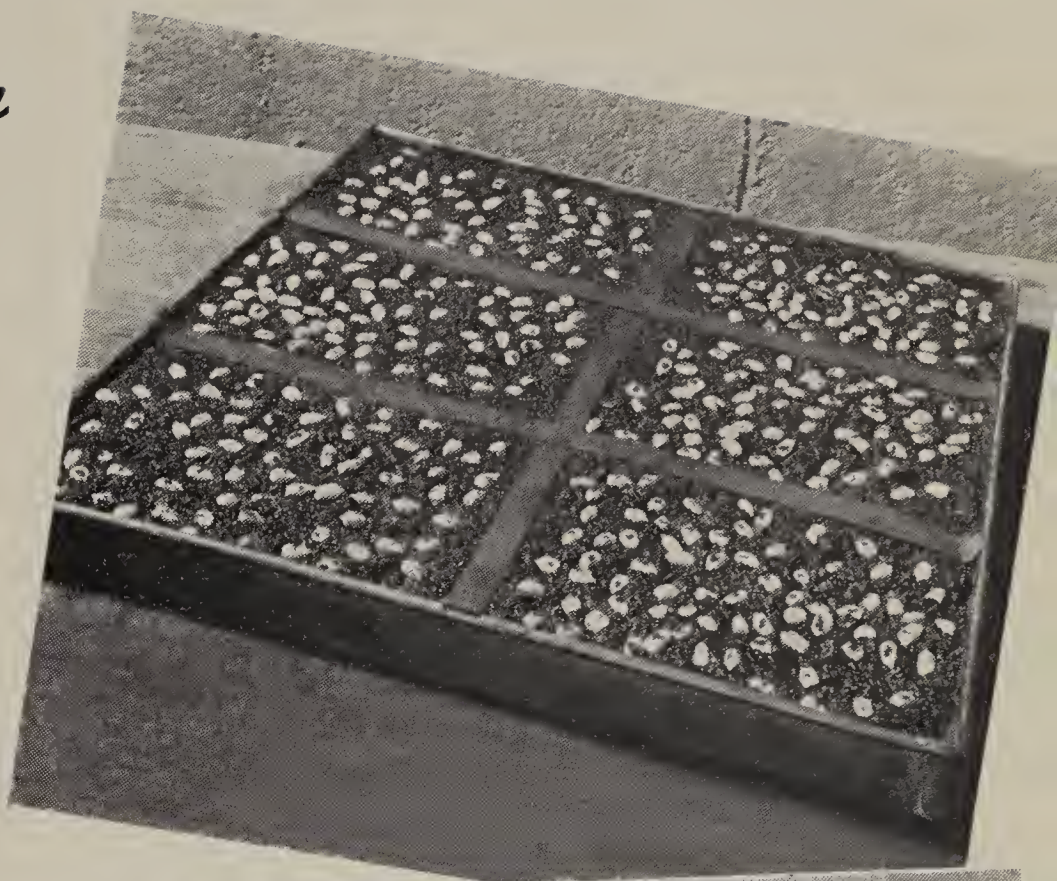
PIONEER hybrid seed corn is thoroughly tested for reliable germination. Every bushel of PIONEER bears a tag giving the minimum germination percentage of the seed it contains.

Seed samples representing each day's run of dried and graded corn from each plant are sent to PIONEER'S modern seed testing laboratory located at Johnston, Iowa, where germination tests are made by the hundreds.

Germinators, electrically-heated and temperature-controlled, test the seed corn under environments similar to various weather conditions.

During the winter of 1937-1938, PIONEER conducted over 17,600 individual germination tests, testing well over 1,350,000 kernels . . . or enough to plant 125 acres of corn.

When planting PIONEER you can expect reliable germination, a good stand, and more bushels per acre.





STORAGE . . .

Stored in large warehouses, PIONEER hybrid seed is safe from pest and moisture damage.

RESULTS . . .

What soundly bred hybrid seed corn does when processed properly.



ABOVE—PIONEER'S UNIFORM KERNEL SIZES GIVE AN ACCURATE DROP

RIGHT—PIONEER GERMINATES VIGOROUSLY



RESULTS—(Continued) . . .



A FIELD OF PIONEER . . . STRAIGHT, STURDY, HEALTHY



PIONEER HARVEST . . . RIPE, HEAVY EARED, HIGH YIELDING

PIONEER EARS . . . SOLID, FIRM, GOOD QUALITY



An Unequalled Record

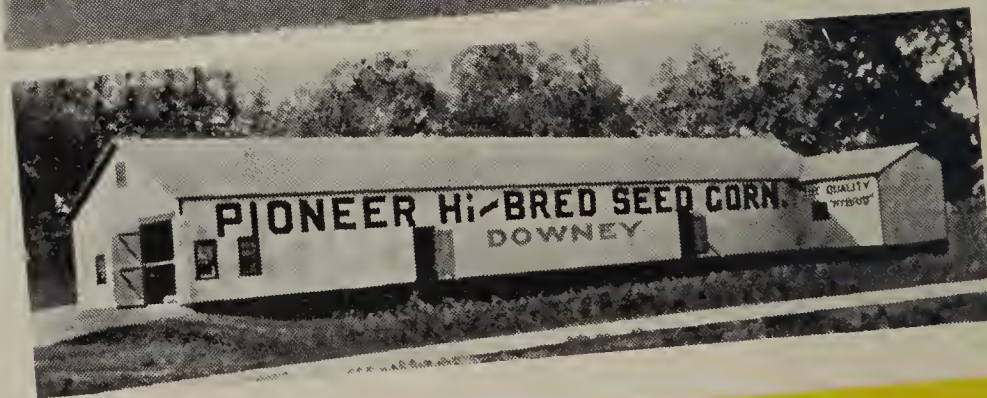
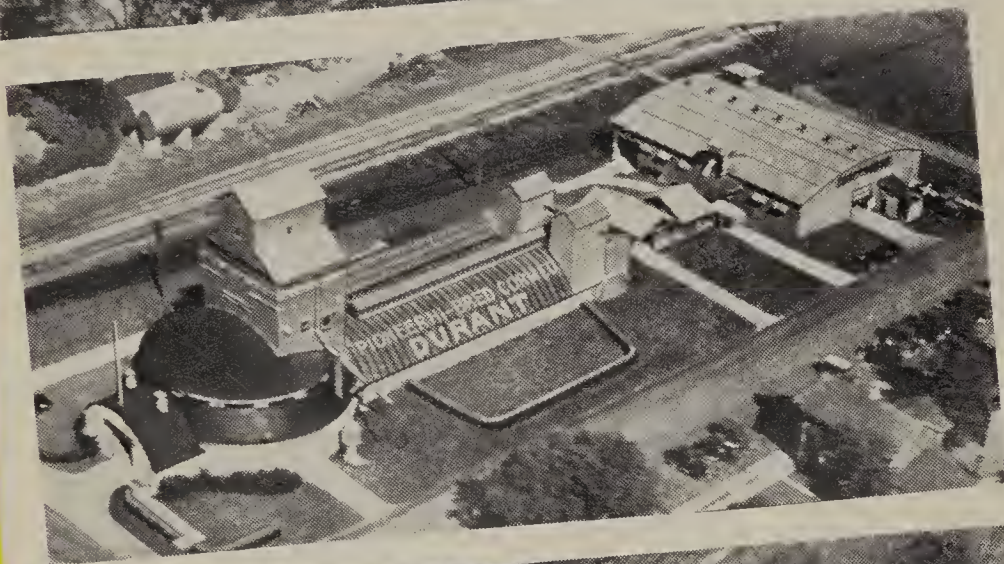
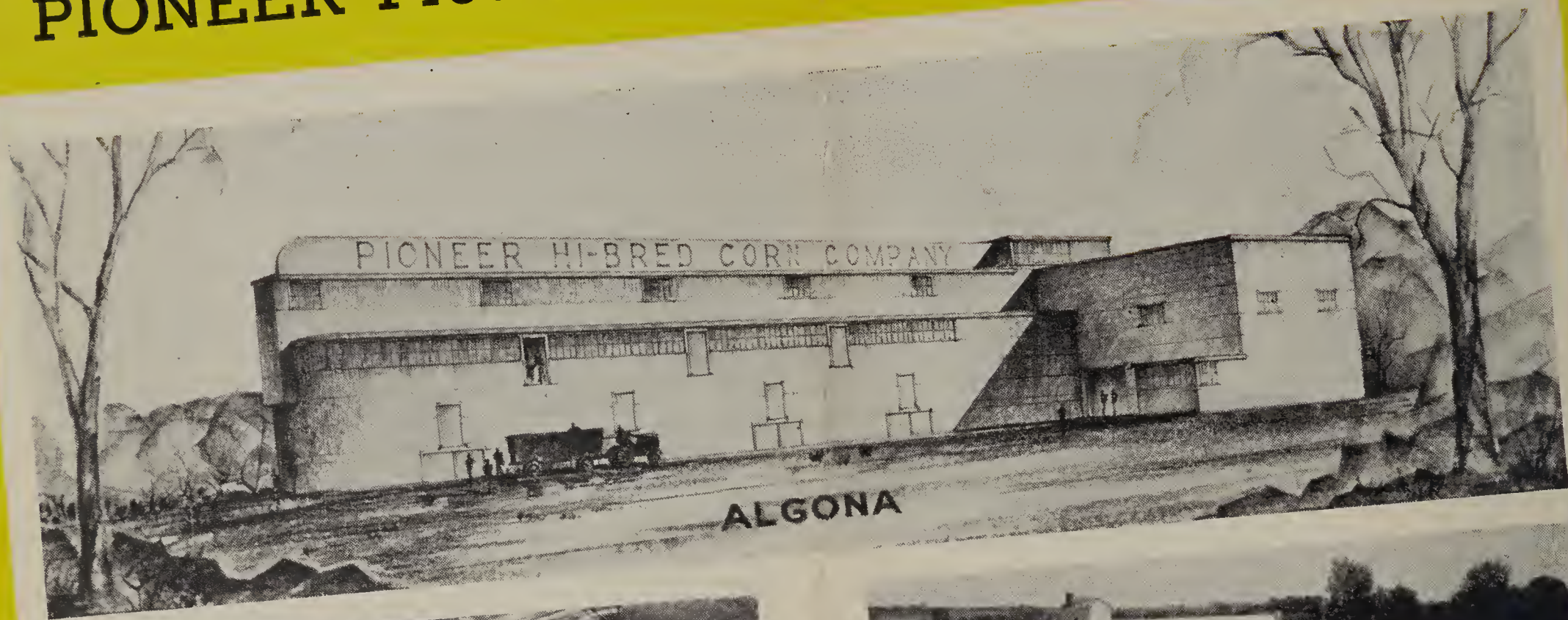
Eight years out of thirteen! That's the remarkable record held by PIONEER. Time after time, it has carried off the coveted prize of the cornbelt, the Banner Trophy, awarded each year by the "Iowa Corn and Small Grain Growers Association" to the producer whose entry makes the most outstanding all-around performance in the Iowa Corn Yield Test.

PIONEER . . . the only commercial producer of hybrid seed corn ever to win the Banner Trophy. What could be more convincing?

When selecting hybrid seed for your 1939 planting, order from a reliable producer whose reputation for quality and the long-time performance of its product is unsurpassed. Next spring, plant hybrid seed that is bred by corn breeding specialists whose hybrids consistently win the Banner Trophy . . . hybrid seed that is expertly processed by experienced seedsmen . . . hybrid seed that grows, produces big crops, and nets you more profit . . . plant PIONEER.



PIONEER Processing Plants . . .



PIONEER HI-BRED CORN CO.
DES MOINES, IOWA